

Monodromy dependence of Painlevé tau functions

O. Lisovyy (Institut Denis-Poisson, Univ. de Tours)

Abstract: In many interesting cases, distribution functions of random matrix theory and correlation functions of integrable models of statistical mechanics and quantum field theory are given by tau functions of Painlevé equations. I will discuss an extension of the Jimbo-Miwa-Ueno differential to the space of monodromy data and explain how this construction can be used to compute constant terms in the tau function asymptotics.